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EXAMINER

SHAFFER, ERIC T

ART UNIT

PAPER NUMBER

3623

DATE MAILED: 06/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/594,652

Applicant(s)

IYER ET AL.

Examiner

Eric T. Shaffer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 and 7-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. This communication is in response to the amendments filed March 11, 2003.

***Summary Of Instant Office Action***

2. Applicant's arguments, filed March 11, 2003, concerning claims 1 – 6 in the Office Action mailed March 11, 2003, have been considered and deemed unpersuasive.

3. The old claim number 6 has been cancelled by the applicant and the applicant has added 42 new claims in claims 7 – 48. Claims 1 – 5 and 7 – 48 are pending and are prosecuted in the response set out below.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. **Claims 1 – 5 and 7 - 48** are rejected under 35 U.S.C. 102(e) as being anticipated by Linden et al. (US 6,266,649).

6. As per **Claim 1**, Linden et al discloses a system for offering to a user one or more alternative products similar to a requested product, comprising:

a first user interface operable to receive a user request for a product having one or more product attributes, the user request specifying a desired attribute value for each of one or more selected product attributes is anticipated by Linden et al., which discloses “a Web server application which processes HTTP (Hypertext Transfer Protocol) requests received over the Internet from user computers” (column 7, lines 10 - 12);

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receiving a user request for a product is anticipated by Linden et al., which discloses "this enables the personal recommendations to be generated rapidly and efficiently, such as in real-time in response to a request by the user" (column 3, lines 34 - 36);

a search procedure operable to select a set of one or more candidate alternative products having attribute values consistent with the desired attribute values for the selected product attributes, for each potential alternative product in a set of potential alternative products the search procedure operable to:

for each selected product attribute, compare the desired attribute value with the attribute value for the potential alternative product to determine a attribute similarity value for the product attribute for the potential alternative product; Determining similar attributes is anticipated by Linden et al., which discloses "TABLE 2  $Weight = ((is\_purchased ? 5:rating) * 2 - 5) * (1 + (max((is\_purchased ? order\_date:0)-(now-6\ months), 0) )/(6\ months)))$ " (column 14, line 58 - 62).

determine a product similarity value for the potential alternative product according to the attribute similarity values; A measure of a similarity value in the number of people who have purchased both products is anticipated by Linden et al., which discloses "item\_P (a popular item) has two "other items," item\_X and item\_Y. Item\_P has been purchased by 300 customers, item\_X by 300 customers, and item\_Y by 30,000 customers. In addition, item\_P and item\_X have 20 customers in common, and item\_P and item\_Y have 25 customers in common. Applying the equation above to the values shown in FIG. 4 produces the following results:

$$CI(item\_P, item\_X) = 20 / \sqrt{300 \cdot 300} = 0.0667$$

$CI(item\_P, item\_Y) = 25 / \sqrt{300 \times 30,000} = 0.0083$ " (column 13, lines 15 - 23).

the set of one or more candidate's alternative products being selected according to the product similarity values for the potential alternative products; A set of alternative products is anticipated by Linden et al., which discloses "For each item of known interest, the service retrieves the corresponding similar items list 64 from the similar items table" (column 10, lines 65 - 67).

a sort procedure operable to rank the one or more candidate alternative products in order of decreasing similarity to the requested product determined according to the product similarity values for the one or more candidate alternative products; Sorting or ranking products based on similarity attribute scores is anticipated by Linden et al., which discloses "combining the sets of similar products identified into a ranked set in which rankings are based at least in-part on the similarity scores" (column 20, lines 7 - 10).

a second user interface operable to present the set of one or more candidate alternative products to the user for selection of a candidate alternative product. A display of products retrieved as the result of a search is anticipated by Linden et al., which discloses "The general form of such a Web page is shown in FIG. 6, which lists five recommended items" (column 15, lines 53 - 54).

7. As per **Claim 2**, Linden et al discloses an interface wherein the first and second user interfaces are combined to function as a single user interface. The first user interface is anticipated by Linden et al which discloses in FIG. 6, wherein "the user can also select a specific category such as "non-fiction" or "romance" from a drop-down menu 202 to request category-

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specific recommendations” (column 15, lines 63 – 64) and by the “Refine your recommendations” functionality in FIG. 6. The second user interface is also anticipated by Linden et al., which discloses “The general form of such a Web page is shown in FIG. 6, which lists five recommended items” (column 15, lines 53 - 54).

8. As per **Claim 3**, Linden et al discloses the system of Claim 1, further comprising:

a database coupled to the search procedure, the database containing information identifying available products, the availability of such products, and the product attributes of such products, the search procedure operable to access the information in the database and, based on the accessed information, to exclude from the set of one or more candidate alternative products all potential alternative products for which no excess supply is available. Database storage of product information or attributes, such as title, recommendation status and cover type, is anticipated by Linden et al., which discloses “The Web server accesses a database of HTML (Hypertext Markup Language) content which includes product information pages and other browsable information about the various products of the catalog. The items that are the subject of the Recommendation Service are the titles (regardless of media format such as hardcover or paperback) that are represented within this database” (column 7, lines 13 - 18). Availability of the product is anticipated by Linden et al., which discloses “The system as in claim 16, wherein the items are products that are available for online purchase” (column 19, lines 55 - 56).

9. As per **Claims 4, 20 and 35**, Linden et al discloses the system, method and software wherein the second user interface, when the user selects a candidate alternative product, is operable to cause the information in the database identifying the availability of the selected

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candidate alternative product to be updated. An interface that allows a user to choose an alternative product and display information is anticipated by Linden et al., which discloses “From this page, the user can select a link associated with one of the recommended items to view the product information page for that item.” (column 15, lines 54 - 56). Availability of the product is anticipated by Linden et al., which discloses “The system as in claim 16, wherein the items are products that are available for online purchase” (column 19, lines 55 - 56).

10. As per **Claims 5 and 33**, Linden et al discloses a method and software for offering, to a user, alternate products similar to a requested product, comprising the steps of:

A method for offering to a user one or more alternative products similar to a requested product, comprising:

receiving from the user a request for a preferred product having one or more product attributes, the user request specifying a desired attribute value for each of one or more selected product attributes; A user entered product request is anticipated by Linden et al., which discloses “a recommendation system that generates real-time recommendations in response to requests from users)” (column 2, lines 25 - 26).

selecting a set of one or more candidate alternative products having attributes consistent with the desired attribute values for the selected product attributes, for each potential alternative product in a set of potential alternative products the search procedure operable to:

for each selected product attribute, compare the desired attribute value with the attribute value for the potential alternative product to determine an attribute similarity value for the product attribute for the potential alternative product and to

determine a product similarity value for the potential alternative product according to the attribute similarity values; Determining a product attribute similarity value is anticipated by Linden et al., which discloses “determine a weighted sum of the attribute similarity index values for the selected product attributes for the potential alternative product according to the attribute weights for the selected product attributes; Both comparing and determining product similarities are anticipated by Linden et al., which discloses “if the weight value for a given popular item is ten, and the similar items list 64 for the popular item is (productid\_A, 0.10), (productid\_B, 0.09), (productid\_C, 0.08), the weighted similar items list would be: (productid\_A, 1.0), (productid\_BB, 0.9), (productid\_C, 0.8), The numerical values in the weighted similar items lists are referred to as ‘scores’” (column 15, lines 18 - 27).”

the set of one or more candidate alternative products being selected according to the product similarity values for the potential alternative products; A set of alternative products is anticipated by Linden et al., which discloses “For each item of known interest, the service retrieves the corresponding similar items list 64 from the similar items table” (column 10, lines 65 - 67).

rank ordering the one or more candidate alternative products according to their degree of similarity with the preferred product determined according to the product similarity values for the one or more candidate alternative products; Ranking alternative products by degree of similarity is anticipated by Linden et al., which discloses “combining the sets of similar products identified in (a) into a ranked set in which rankings are based at least in-part on the similarity



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scores, and (c) selecting at least some of the products in the ranked set to display to the online user” (column 20, lines 7 - 12).

presenting to the user the [list of] set of one or more candidate alternative products for selection of a candidate alternative product. Displaying a list of alternative or recommended products is anticipated by Linden et al., which discloses “generating recommendations, in which case the recommendations may be generated and displayed automatically when the user views the shopping cart contents” (column 5, lines 31 - 34).

11. As per **Claims 7, 11, 21, 25, 36 and 40**, Linden et al discloses the system, method and software wherein the desired attribute value for a selected product attribute comprises a maximum, minimum, or exact attribute value for the selected product attribute. A maximum and a minimum attribute value is anticipated by Linden et al., which discloses “the resulting list is then sorted in order of highest-to-lowest” (column 11, lines 25 - 27), where the first value on the list is the highest or maximum value and the last item on the list is the lowest or minimum value.

12. As per **Claims 8, 22 and 37**, Linden et al discloses the system, method and software wherein the user request further specifies one or more of a maximum attribute value and a minimum attribute value for each selected product attribute; A maximum and a minimum attribute value is anticipated by Linden et al., which discloses “the resulting list is then sorted in order of highest-to-lowest” (column 11, lines 25 - 27), where the first value on the list is the highest or maximum value and the last item on the list is the lowest or minimum value.

the search procedure is operable to exclude from the set of one or more candidate alternative products all potential alternative products having attribute values that do not satisfy

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one or more of the maximum attribute value and the minimum attribute value for a corresponding selected product attribute. The exclusion or filtering is anticipated by Linden et al., which discloses "the sorted list is filtered to remove unwanted items" (column 11, lines 26 - 27).

13. As per Claims 9, 23 and 38, Linden et al discloses the system, method and software wherein the user request further specifies a desired level of similarity for each of one or more product characteristics, each product characteristic encompassing one or more selected product attributes. A maximum and a minimum attribute value is anticipated by Linden et al., which discloses "the resulting list is then sorted in order of highest-to-lowest" (column 11, lines 25 - 27), where the first value on the list is the highest or maximum value and the last item on the list is the lowest or minimum value.

14. As per Claims 10, 24 and 39, Linden et al discloses the system, method and software wherein the specified desired level of similarity for a product characteristic acts as a constraint on the attribute values a potential alternate product may have to become a candidate alternative product. Product characteristics that can act as constraints on selecting a similar product is anticipated by Linden et al., which discloses "the list is filtered by deleting any items that (1) have already been purchased or rated by the user, (2) have a negative score, or (3) do not fall within the designated product group (e.g., books) or category (e.g., "science fiction," or "jazz")" (column 15, lines 37 - 41).

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15. As per **Claims 12, 26 and 41**, Linden et al discloses the system, method and software wherein each attribute similarity value ASV for a selected product attribute is calculated as follows:

if the attribute value  $x$  for the potential alternative product is either more or less than the desired attribute value  $A_r$  for the requested product, where  $A$  is a minimum attribute value for the selected product attribute across all potential alternative products; A measure of the percentage of people desiring an alternative product that also have a stated desire for the requested product is anticipated by Linden et al., which discloses "item\_P (a popular item) has two "other items," item\_X and item\_Y. Item\_P has been purchased by 300 customers, item\_X by 300 customers, and item\_Y by 30,000 customers. In addition, item\_P and item\_X have 20 customers in common, and item\_P and item\_Y have 25 customers in common. Applying the equation above to the values shown in FIG. 4 produces the following results:

$$CI(\text{item\_P}, \text{item\_X}) = 20 / \sqrt{300 \cdot 300} = 0.0667$$

$$CI(\text{item\_P}, \text{item\_Y}) = 25 / \sqrt{300 \cdot 30,000} = 0.0083" \text{ (column 13, lines 15 - 23).}$$

16. As per **Claims 13, 27 and 42**, Linden et al discloses the system, method and software wherein if a selected product attribute is a binary attribute, then the attribute similarity value for a potential alternative product is zero if the attribute value for the potential alternative product is not the same as the desired attribute value for the requested product and is one if the attribute value for the potential alternative product is the same as the desired attribute value for the requested product. A binary attribute search process is anticipated by Linden et al., which discloses "is\_purchased is a Boolean variable which indicates whether a popular item was purchased" (column 14, lines 50 - 52).

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17. As per **Claims 14, 28 and 43**, Linden et al discloses the system, method and software wherein:

the user request further specifies an attribute weight for each selected product attribute; Weighting of attributes or interests is anticipated by Linden et al., which discloses “the similar items lists read from the table are appropriately weighted (prior to being combined) based on indicia of the user's affinity for or current interest in the corresponding items of known interest” (column 6, lines 15 - 18).

the search procedure is operable to determine a weighted sum of the attribute similarity values for the selected product attributes for the potential alternative product according to the attribute weights for the selected product attributes; A sum of weighted attributes is anticipated by Linden et al., which discloses “if the weight value for a given popular item is ten, and the similar items list 64 for the popular item is

(productid\_A, 0.10), (productid\_B, 0.09), (productid\_C, 0.08),

the weighted similar items list would be:

(productid\_A, 1.0), (productid\_BB, 0.9), (productid\_C, 0.8)” (column 15, lines 19 - 25).

18. As per **Claims 15, 29 and 44**, Linden et al discloses the system, method and software wherein the product similarity value for a potential alternative product comprises a global index value for the potential alternative product with respect to the requested product. A global or

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common index value for evaluating the similarity between alternative and requested products is anticipated by Linden et al., which discloses “the commonality index (CI) values are measures of the similarity between two items, with larger CI values indicating greater degrees of similarity” (column 12, lines 63 - 65).

19. As per **Claims 16, 30 and 45**, Linden et al discloses are the system, method and software wherein:

the user request further specifies a threshold product similarity value and the search procedure is operable to compare the product similarity value for each potential alternative product with the threshold product similarity value and to exclude from the set of one or more candidate alternative products each potential alternative product having a product similarity value that does not satisfy the threshold product similarity value. A threshold level of values to filter attribute similarities against is anticipated by Linden et al., which discloses “the shopping cart recommendations service is preferably invoked automatically when the user displays the contents of a shopping cart that contains more than a threshold number (e.g., 1) of popular items” (column 16, lines 8 – 9) and “the service becomes available to the user (i.e., the appropriate hyperlink is presented to the user) once the user has purchased and/or rated a threshold number (e.g. three) of popular items within the corresponding product group” (column 14, lines 27 - 30).

20. As per **Claims 17, 31 and 46**, Linden et al discloses the system, method and software wherein the sort procedure is operable to limit the ranked candidate alternative products to a user-specified number. Limiting the number of ranked items to a user specified number is

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anticipated by Linden et al., which discloses “the sorted other items lists are filtered by deleting all list entries that have fewer than 3 customers in common” (column 13, lines 48 - 49).

21. As per **Claims 18, 32 and 47**, Linden et al discloses the system, method and software wherein:

the user request further specifies an attribute weight for each selected product attribute; Weighting of attributes is anticipated by Linden et al., which discloses “the similar items lists read from the table are appropriately weighted (prior to being combined) based on indicia of the user's affinity for or current interest in the corresponding items of known interest” (column 6, lines 14 - 18).

the sort procedure is operable to if two candidate alternative products are tied in that they have the same product similarity values, ranking the two candidate alternative products in order of decreasing attribute similarity value for the selected product attribute having the highest attribute weight, and if the two candidate alternative products are still tied in that they have the same attribute similarity value for the selected product attribute having the highest attribute weight, ranking the two candidate alternative products in order of decreasing attribute similarity value for the selected product attribute having the second highest attribute weight and to if necessary to break the tie, continuing with respect to one or more successive selected product attributes having lower attribute weights until the tie is broken. Using weights is anticipated by Linden et al., which discloses “if the weight value for a given popular item is ten, and the similar items list 64 for the popular item is:

(productid\_A, 0.10), (productid\_B, 0.09), (productid\_C, 0.08),

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the weighted similar items list would be:

(productid\_A, 1.0), (productid\_BB, 0.9), (productid\_C, 0.8),

The numerical values in the weighted similar items lists are referred to as 'scores'" (column 15, lines 17 - 27). Sorting these items is also anticipated by Linden et al., which discloses "the resulting list is sorted from highest-to-lowest score. The effect of the sorting operation is to place the most relevant items at the top of the list" (column 15, lines 34 - 37).

22. As per **Claims 19 and 34**, Linden et al discloses the system, method and software comprising:

accessing information identifying available products, the availability of such products, and the product attributes of such products and, based on the accessed information, excluding from the set of one or more candidate alternative products all potential alternative products for which no excess supply is available. Using a filter to exclude items based on alternate attributes such as the item already has been purchased, is anticipated by Linden et al., which discloses "the list is filtered by deleting any items that (1) have already been purchased or rated by the user, (2) have a negative score, or (3) do not fall within the designated product group" (column 11, lines 26 - 30).

23. As per **Claim 48**, Linden et al discloses a system for offering to a user one or more alternative products similar to a requested product, comprising:

a user interface operable to receive a user request for a product having one or more product attributes, with which the user requests and selects and reads about products within the system. An interface where a user can enter and read data is anticipated by Linden et al., which discloses a shopping cart as "a shopping cart is a data structure and associated code which keeps

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track of items that have been selected by a user for possible purchase” (column 4, line 66 – column 5, line 1).

an attribute value and weight for each selected product attribute; Attribute weights are anticipated by Linden et al., which discloses “TABLE 2 1 Weight = ( (is\_purchased ? 5:rating) \* 2 - 5) \* 2 (1 + (max((is purchased ? order\_date:0)-(now-6 months), 0) ) 3 / (6 months))” (column 14, lines 58 - 63).

threshold product similarity value; A similarity threshold is anticipated by Linden et al., which discloses “the service becomes available to the user (i.e., the appropriate hyperlink is presented to the user) once the user has purchased and/or rated a threshold number (e.g. three) of popular items within the corresponding product group” (column 14, lines 27 - 30).

a search procedure operable to select a set of one or more candidate alternative products having attribute values consistent with the desired attribute values for the selected product attributes, for each potential alternative product in a set of potential alternative products the search procedure operable to each selected product attribute, compare the desired attribute value with the attribute value for the potential alternative product to determine an attribute similarity index value for the product attribute for the potential alternative product; A similarity index is anticipated by Linden et al., which discloses “discloses “the commonality index (CI) values are measures of the similarity between two items, with larger CI values indicating greater degrees of similarity” (column 12, lines 63 - 65).

determine a weighted sum of the attribute similarity index values for the selected product attributes for the potential alternative product according to the attribute weights for the selected



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product attributes; A weighted sum is anticipated by Linden et al., which discloses "if the weight value for a given popular item is ten, and the similar items list 64 for the popular item is

(productid\_A, 0.10), (productid\_B, 0.09), (productid\_C, 0.08),

the weighted similar items list would be:

(productid\_A, 1.0), (productid\_BB, 0.9), (productid\_C, 0.8),

The numerical values in the weighted similar items lists are referred to as 'scores'" (column 15, lines 18 - 27).

determine a product similarity index value for the potential alternative product according to the weighted sum of the attribute similarity index values; A similarity index is anticipated by Linden et al., which discloses "the commonality index (CI) values are measures of the similarity between two items, with larger CI values indicating greater degrees of similarity" (column 12, lines 62 - 65).

compare the product similarity value for the potential alternative product with the threshold product similarity value and to include the potential alternative product in the set of one or more candidate alternative products if the potential alternative product has a product similarity value that satisfies the threshold product similarity value; Another measure of similarity, that the same people purchased both items, is anticipated by Linden et al., which discloses "item\_P (a popular item) has two "other items," item\_X and item\_Y. Item\_P has been purchased by 300 customers, item\_X by 300 customers, and item\_Y by 30,000 customers. In addition, item\_P and item\_X have 20 customers in common, and item\_P and item\_Y have 25 customers in common. Applying the equation above to the values shown in FIG. 4 produces the following results:

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$$CI(\text{item\_P}, \text{item\_X}) = 20 / \sqrt{300 \cdot \text{times} \cdot 300} = 0.0667$$

$$CI(\text{item\_P}, \text{item\_Y}) = 25 / \sqrt{300 \cdot \text{times} \cdot 30,000} = 0.0083 \text{ (column 13, lines 15 - 23).}$$

a sort procedure operable to rank the one or more candidate alternative products in order of decreasing similarity to the requested product determined according to the product similarity index values for the one or more candidate alternative products; A maximum and a minimum attribute value is anticipated by Linden et al., which discloses “the resulting list is then sorted in order of highest-to-lowest” (column 11, lines 25 - 27), where the first value on the list is the highest or maximum value and the last item on the list is the lowest or minimum value.

the user interface operable to present the set of one or more candidate alternative products to the user for selection of a candidate alternative product. A user interface with which the user selects and reads about products within the system is anticipated by Linden et al., which discloses a shopping cart as “a shopping cart is a data structure and associated code which keeps track of items that have been selected by a user for possible purchase” (column 4, line 66 – column 5, line 1).

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*Response to Amendments*

24. Applicant's arguments filed March 11, 2003 have been fully considered, but the same are not persuasive.

Applicant argues that Linden fails to recite the use of attributes in the user request specifying a desired attribute value for each of one or more selected product attributes. However, Linden does teach attributes in Table 2 such as "a Boolean variable which indicates whether the popular item was purchased, rating is the rating value (1-5), if any, assigned to the popular item by the user, order date is the day/time measured in seconds since 1970, the popular item was purchased" (column 14, lines 50 - 53).

Applicant argues that Linden fails to recite a search procedure operable to select a set of one or more candidate alternative products having attribute values consistent with the desired attribute values for the selected product attributes. However, an attribute based search procedure is taught as "to generate a set of recommendations for a given user, the service retrieves from the table the similar items lists corresponding to items already known to be of interest to the user, and then appropriately combines these lists to generate a list of recommended items" (column 3, lines 7 - 10).

Applicant argues that Linden fails to recite a sort procedure operable to rank the one or more candidate alternative products in order of decreasing similarity to the requested product determined according to the other product similarity for the one or more candidate alternative products. However, this sort procedure is taught as "The resulting list is then sorted (step 88) in order of highest-to-lowest score." (column 11, lines 24 - 26).

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Applicant argues that Linden fails to recite a similarities based on comparison of attribute values. However, the search procedure does use the attributes of "a Boolean variable which indicates whether the popular item was purchased, rating is the rating value (1-5), if any, assigned to the popular item by the user, order date is the day/time measured in seconds since 1970, the popular item was purchased" (column 14, lines 50 - 53). Linden further uses filtering to further define distinctive attributes such as

In light of the above stated facts, examiner respectfully states that applicant's arguments have been fully considered, deemed unpersuasive, and the rejections under the prior Office Action, mailed March 11, 2003, are maintained, along with the additional rejection of the newly added claims 7 - 48.

### *Conclusion*

25. Applicant's amendment necessitates the new ground(s) of rejection presented in this Office Action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. 1.136(a).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 C.F.R. 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of final action.

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26. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric Shaffer whose telephone number is (703) 305-5283. The Examiner can normally be reached on Monday-Friday, 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (703) 305-9643. The fax number for the organization is (703) 305-0040/308-6306

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Receptionist whose telephone number is (703) 305-3900.

Eric Shaffer

April 13, 2003

  
TARIQ R. HAFIZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600